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ABSTRACT

A task force studied the undergraduate program at the College of Agriculture and the School of Forest Resources and Conservation at the University of Florida, ranging from recruitment techniques and strategies designed to attract students to the college to strategies to recognize and reward quality teaching at the undergraduate level. Data were gathered by mail and through focus groups from students, faculty, and staff. Some of the major recommendations derived from the study are the following: (1) the college/school should foster more interdepartmental collaboration; (2) mechanisms should be identified to increase the resources available to support academic programs; (3) a mission statement should be developed; (4) recruitment efforts should be increased using strategies identified through the study; (5) placement procedures should be upgraded and admission standards should be developed by each department; (6) policies to support nontraditional and minority students should be developed; (7) computer skills should be developed in all students; and (8) the program should be more internationalized. (Five appendixes include the College of Agriculture alumni survey results, enrollment statistics, curricula overview, certificate programs overview, and criteria for admission into the department of microbiology and cell science as an undergraduate major.) (KC)

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Academic Programs
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Report
of the

# Task Force on Undergraduate Curricula Development

College of Agriculture
Institute of Food and Agricultural Sciences
University of Florida
Gainesville, Florida 32611

January 1993

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TASK FORCE ON UNDERGRADUATE CURRICULA DEVELOPMENT
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# 1.0 EXECUTIVE SUMMARY

The Task Force on Undergraduate Curricula Development was formed to study various components of the College of Agriculture (COA) and School of Forest Resources and Conservation (SFRC) undergraduate program, ranging from recruitment techniques and strategies designed to attract students to the college/school to strategies to recognize and reward quality teaching at the undergraduate level.

Many data were gathered from individuals and groups impacted by the undergraduate program. Data were reviewed by the Task Force and recommendations made for strengthening the undergraduate experience of COA/SFRC students and faculty.

This executive summary is organized in the following format:

**MAJOR RECOMMENDATIONS** -- Recommendations deemed most critical to the development/revitalization of a dynamic, relevant undergraduate curriculum that best serves the needs and interests of students, faculty, employers, and the university mission.

**GENERAL RECOMMENDATIONS** -- A listing of recommendations without explanation for each of the areas under study.

Detailed background information and explanation of all recommendations can be found in sections 2.0 - 11.0 in the main body of this report.

## 1.1 MAJOR RECOMMENDATIONS

- **The COA/SFRC should consider identifying strategies to foster more interdepartmental collaboration/coordination/interaction. The Task Force believes that improved curriculum planning, resource utilization, and quality of graduates could be the result. In addition, this interaction might help to foster the development of cooperative majors that cut across current departmental lines.**

  Increased cooperation/interaction between departments might also assist in more effective marketing of majors/options available to students in the COA/SFRC. Departments with related majors/options might cooperate in the development of promotional and information (marketing) materials that emphasize the breadth and depth of programs of study available throughout the COA/SFRC. One strategy that might be used as a conceptual framework for marketing majors/options might include:

  Food/Agricultural Sciences and Management
  Biological/Natural Sciences
  Natural Resources and the Environmental
  Human and Community Sciences

- **The perception and importance of the academic functions conducted by the faculty (i.e., teaching, advising, curricula development) in the college must be improved.** Many faculty members believe that the academic activities they conduct are not perceived to be as important as research activity to some faculty and administrators. Likewise, they do not feel they are equitably rewarded for their efforts in academic, program - related activities.

- **UF has been described as a teaching and research institution. The Task Force recommends that mechanisms be identified for increasing the resources available to support academic programs. For the College of Agriculture to gain national prominence in academic programs, the Task Force recommends that the allocation of resources (currently 10%) compare more favorably with peer institutions i.e (Ohio State = 22%, Kansas State University = 16%, University of Arizona = 20%).**

## 1.2 GENERAL RECOMMENDATIONS

### 1.2.1 Mission and Goals

- A mission statement should be developed relating to COA/SFRC academic programs.

### 1.2.2 Majors/Minors/Certificate Programs

- Low enrollment majors should consider merging with related majors.
- Departments should review all curriculum options to determine if they are necessary and meeting student/industry needs.
- Need for inter- and multi-disciplinary majors should be considered.
- COA/SFRC faculty in departments without academic programs (i.e., 4-H, Home Economics) should become more involved in programs related to their disciplines.
- The benefit of existing certificate programs should be examined.
- Catalog text pertaining to the COA/SFRC should be more consistent in format and content.
- Graduate students or OPS teaching funds - required to teach.
- A "capstone experience" for all undergraduates should be provided.
- All students should have a minimum level of skill in oral and written communication, computer literacy, ethics, international development, and leadership development.
- Concepts of agricultural health and safety should be integrated into all majors when appropriate.

### 1.2.3 Recruitment

- Each major should appoint a recruitment coordinator to serve on a COA/SFRC Council of recruiters.
- The COA/SFRC recruiter should meet with recruitment coordinators to develop recruitment plans.
- A package of print and non-print recruitment materials should be developed.
- Ag Ambassador program should be expanded to a minimum of 25 students representing all majors.
- Specific contact methods should be outlined for target groups.
- Mailing lists of high school and community college counselors should be developed.
- Career orientation/college exploration workshops should be held for community college and university advisors.
- Special recruitment efforts for undecided UF students should be organized.
- Service courses should be used as recruitment devices.
- SHARE should make special efforts to solicit monies for scholarships to be used as recruitment incentives.
- Recruitment teams should be developed in cooperation with College of Agriculture Alumni and Friends for statewide coverage.

### 1.2.4 Placement

- Placement coordinators should be designated for each major.
- A strategic plan for placement should be developed by the COA/SFRC Placement coordinator and the council of coordinators.
- Placement data should be shared with faculty, extension personnel, agriculture teachers and others who are involved in recruitment activity.
- Workshops should be held for students on placement-related subjects.
- An internship program should be established for COA/SFRC students.
- Alumni should be surveyed every five years.

### 1.2.5 Admissions/Progression/Graduation Standards

- Each department/major will determine its admission/progression standards.

- Admission/progression standards should be widely distributed throughout the community college and SUS and be articulated with "2 + 2" programs.

- Graduation requirements should include oral and written communication, computer skills, international studies, profession ethics, and integration/synthesis experiences.

- Increasing departmental advising responsibilities should be adequately funded.

### 1.2.6 Non-Traditional/Minority Student Issues

- An information system for tracking minority student recruitment, retention and graduation must be developed.

- Minority advisement and recruitment should be shared and not left solely to the COA/SFRC "minority recruiter."

- Closer relationships between UF Minority Affairs and COA/SFRC departments need to be established.

- Departments need support to deal with problems/issues disproportionately affecting minority students.

- Departments with low minority enrollment need encouragement to increase recruitment efforts.

- COA/SFRC student organizations need to undertake activities to encourage minority involvement and participation.

- COA/SFRC needs to concentrate more on alleviating academic deficiencies of minority students.

- Retention of minority students needs increased attention.

- Efforts need to continue to increase understanding and appreciation for cultural diversity among COA/SFRC students, faculty and administration.

### 1.2.7 Service Courses

- Lower and upper division service courses which meet university general education requirements and appeal to students outside COA/SFRC should be developed.

- All COA/SFRC curricula should include strategies for development of skills in oral/written communications and computer literacy.

- Large enrollment service courses should receive priority consideration for financial/personnel support.

### 1.2.8 Advising and Counseling

- Advising should continue to be departmental-faculty based.
- Workshops for advisors in LAS should be conducted to inform them of opportunities for students in COA/SFRC.
- Every department should be on-line with SASS as soon as financially possible.
- COA/SFRC Pre-vet advisors and Veterinary Medicine Student Services should meet to be better informed of criteria for consideration for Vet School admission.
- Faculty need more recognition/credit for advising/counseling activities.

### 1.2.9 Post-Baccalaureate Program

- All post-baccalaureate admissions should be subject to departmental approval.
- Applicants should provide a written statement detailing their reason for requesting post-baccalaureate status.
- A course plan should be developed for each student based on their stated goals.
- Each academic program should establish admission criteria for post-baccalaureate applicants.

### 1.2.10 Computer Information Retrieval Skills Development

- All COA/SFRC students should have microcomputer skills in word processing, graphics, spreadsheets, database management, and information retrieval.
- Students in each major should have adequate experience with computer programs related to their career field.

### 1.2.11 Faculty Recognition/Development/Responsibility

- The importance of the teaching/advising function must be reflected in a reward system that recognizes contributions of faculty.
- A faculty development committee should be created to coordinate the design, implementation and evaluation of faculty development activities.
- Monies should be allocated for faculty to participate in short-term development activities.
- Courses such as AgSat "Methods of COA/SFRC Teaching" should be continued.
- An "Orientation to Effective Teaching" seminar for new faculty should be created.
- Faculty need to more adequately document their academic performance.

- Consideration should be given to establishing an "Academy for Teaching Excellence" where master teachers assist other faculty to improve teaching performance.

- Quality teaching should continue to be recognized via Honor Roll, Teacher of Year and other means.

- The process for selecting COA/SFRC Teachers of the Year should be reviewed.

- Faculty should apply for extramural funding for instructional improvement.

**1.2.12 Internationalization of the Curriculum**

- UG Curriculum Committee should give leadership to development of course(s) with wide appeal that deal with "world agriculture."

- Each academic unit should implement appropriate strategies to assure that students realize the implications of food and agricultural systems internationally.

- Student and faculty opportunities for international study and experience should be investigated.

- Funds should be solicited via SHARE to support international opportunities for faculty and students.

- Relationships between IFAS Office of International Programs and UF International Programs and Studies office should be strengthened.

# 2.0 INTRODUCTION

The Task Force on Undergraduate Curricula Development was formed in November 1991 by Larry J. Connor, Dean for Academic Programs, College of Agriculture (COA) to review and make recommendations in the following areas and others deemed appropriate:

1. Mission and goals of the University of Florida's (UF's) undergraduate agricultural and natural resources academic programs.

2. University and college admission and graduation requirements.

3. Number and types of undergraduate majors, including disciplinary, professional, and inter-departmental majors.

4. Student recruitment and job placement activities of the college and departments.

5. Teaching quality/methods/rewards.

6. Minors and specializations.

7. Service course offerings within the college and for the university.

8. Academic advising within the Office of Academic Programs (Resident Instruction) and individual departments.

9. Computer and information retrieval skills.

10. Adequacy of current college majors, courses, and programs to deal with contemporary and emerging environmental, international, and economic dimensions of our global society.

## 2.1 PROCEDURE

To carry out its charge, the Task Force gathered data from various sources, both directly and indirectly. Besides reviewing the existing situation concerning enrollments, majors/minors/ certificate programs available, recruitment/placement programs, faculty development and evaluation activities, and other available data, several strategies were used to gather input, including:

All faculty in IFAS were contacted via mail to solicit input.

All faculty were invited to attend and provide input during two on-campus faculty forums.

Student input was solicited via an on-campus forum.

All department chairs were surveyed via mail, and responses were received from 12 departments (66%).

A stratified random sample of College of Agriculture (COA)/School of Forest Resources and Conservation (SFRC) undergraduate alumni (1986-1991) stratified by % of majors graduating was surveyed via mail questionnaire. Appendix A lists a summary of results.

Current employers of UF COA/SFRC graduates were informally surveyed concerning their perceptions of preparation of graduates in their employ and their recommendations for future graduates' preparation.

Written reports from a number of universities throughout the US concerning the results of similar curricula studies activities conducted on their campuses were reviewed.

Gathered data relating to the various areas under study by the Task Force were studied and synthesized. Task Force members met weekly to analyze information. Conclusions were drawn and recommendations made for the 11 major areas under study. In addition, some major recommendations were made which cut across several of the specific areas under study.

# 3.0 MISSION AND GOALS

## 3.1 SITUATION

The Task Force reviewed several documents and sources to find a COA/SFRC statement of mission and/or goals. The only "official" mission statement found was the following Florida Administrative Code (6C1-6.001) under the title of "IFAS: Mission":

> The primary mission of the Institute of Food and Agricultural Sciences is to help Florida realize its maximum potential for agricultural (including food, fiber, and environmental horticulture) development and to contribute to the solution of social, economic, environmental, and cultural problems of concern to the people of Florida and is carried out statewide through the three closely related functions of resident instruction, research, and extension. (Vol. 3, p. 807).

In the 1991-1992 Undergraduate Catalog of the **University Record** there is the following "mission-like" statement:

> The aim of the College of Agriculture is to provide students with the best education possible for service in agricultural business, technology, and science. . . The School of Forest Resources and Conservation is a specialized faculty in the College of Agriculture. (p.34).

Further definition of SFRC's "mission" is found in the Catalog:

> The primary objective of the School's departments . . . is to provide professional education in the areas of forestry, wildlife ecology, and resource conservation. (p. 88).

## 3.2 RECOMMENDATIONS

1. The COA/SFRC's mission statement should be specific to both on- and off-campus academic programs conducted in and through the college. A mission and goals statement for consideration follows in 3.3.

## 3.3 SAMPLE MISSION/GOALS

The Task Force provides the following mission and goals statement for consideration:

**Mission**

**COA/SFRC's mission is to provide students with a quality and contemporary education that develops the skills, abilities, and experiences to prepare them for competitive, viable job markets, productive citizenship, and life-long learning as it impacts our food/agricultural suppliers, natural resources, the environment and communities.**

**Goals**

**The specific goals of COA/SFRC's academic mission are to:**

1. Prepare students for professional careers and informed and responsible citizenship in ever-changing state, national, and international economies and societies.

2. Offer quality academic programs which emphasize the application of the physical, biological, social, and business sciences.

3. Provide programs leading to preparation for professional school and graduate education.

4. Offer an international and multi-cultural dimension to undergraduate education which will allow students to understand, adapt to, and participate meaningfully in a global society.

5. Provide an integrated and interactive learning environment in which students can expand knowledge, increase self-confidence, and develop self-discipline in their chosen fields of study.

6. Make on-campus educational programs of the college available to the people of Florida through off-campus locations insofar as resources allow.

7. Support the University in accomplishing its overall cross-disciplinary mission and goals.

8. Provide students with a framework for addressing the social, economic, environmental and political issues they will encounter in their careers.

# 4.0 MAJORS/MINORS/CERTIFICATE PROGRAMS

## 4.1 SITUATION

In the Fall, 1992 semester, there were 1,568 undergraduates enrolled in 15 departments in COA/SFRC and 159 enrolled in the two departments that offer undergraduate degrees in SFRC. Enrollment in majors (not options) ranges from 2 to 280 students (see Appendix B). There are 40 curriculum options and 16 majors available for students to choose from in the departments awarding degrees (see Appendix C). In addition, there are eight minors and ten certificate programs (see Appendix D) available to students. The enrollment in these programs is very low or non-existent. Information about the various majors is described in the **Undergraduate Catalog** in varying degrees of clarity and specificity.

## 4.2 RECOMMENDATIONS

1. The COA/SFRC should consider identifying strategies to foster more interdepartmental collaboration/coordination/interaction. The Task Force believes that improved curriculum planning, resource utilization, and quality of graduates could be the result. In addition, this interaction might help to foster the development of cooperative majors that cut across current departmental lines.

   Increased cooperation/interaction between departments might also assist in more effective marketing or majors/options available to students in the COA/SFRC. Departments with related majors/options might cooperate in the development of promotional and informational (marketing) materials that emphasize the breadth and depth of programs of study available throughout the COA/SFRC. One strategy that might be used as a conceptual framework for marketing majors/options might include:

   Food/Agricultural Sciences and Management

   > Encompasses many disciplines within the sphere of agriculture such as animal and crop sciences, production and technology, business, soil technology and food science and human nutrition.

   Biological/Natural Sciences

   > Encompasses the basic and applied sciences which serve as a foundation for agricultural and natural resources such as microbiology and cell science, entomology/nematology, nutritional science, plant pathology and botany.

   Natural Resources and the Environmental

   > Encompasses disciplines that emphasize the interaction of people, natural resources, and environmental management. The objective is to provide an educational framework for developing professional skills and approaches for planning the use and management of natural resources and protection of the environment.

Human and Community Sciences

Encompasses individual and family development and function in the community and societal context. Includes human and community development; family, youth and community studies; agricultural education; extension education; dietetics; and communication.

2. Majors with consistently low enrollments (average of 20 total students or less per year over 5-year period) should be considered for merger with other majors, if combining resources would result in a stronger undergraduate program. The recent development of the Horticultural Sciences major might be an example for consideration by affected programs. However, majors serving unique needs in the academic program should be individually considered with regard to COA's mission.

3. Departments should undertake systematic, and comprehensive curriculum review to determine whether all options are necessary for student success in industry, graduate/professional school, or other life pursuits.

4. The Dean for Academic Programs should create the mechanism for related departments to consider the feasibility of interdisciplinary majors. Examples of possible majors brought to the attention of the Task Force include: Human Resource Development (AEC, 4-H, FRE, Home Economics), Toxicology, Nutrition Education (FSHN, AEC, Home Economics), Environmental Education (SFRC, AEC, Education), Natural Resources and Environmental Management (SFRC, FRE) and Human Resources/Community Development. Although more majors/options could result, the Task Force believes that a need exists for more interdisciplinary activity between and among related disciplines/program areas. NOTE: The Task Force on Graduate Programs has a similar recommendation.

5. COA/SFRC should encourage faculty in departments currently without assigned teaching FTE (Home Economics and 4-H & Other Youth Programs) to become more involved in teaching programs/majors related to their discipline. Consideration should be given to providing FTE and support monies for these activities as soon as support is sufficient to maintain existing teaching programs in the college. In the interim, however, those faculty who wish to be involved in teaching programs could supervise internships (AEC), assist with clinical/community dietetics rotations (FSHN), or participate in similar activities where their expertise could be put to best use.

6. The office of the Dean for Academic Programs and departments coordinating specific certificate programs should determine the benefit of the many existing certificate programs. Few students pursue these programs -- perhaps due to lack of interest or knowledge.

7. Every effort should be made to assure consistency in format and content for information about majors, minors, curricula, and options in the Undergraduate Catalog. The Task Force recommends development of a COA/SFRC format guide in consultation with the College Undergraduate Curriculum Committee.

8. Graduate students on OPS teaching funds for assistantships must be required to teach. Assistantships should be designated as teaching or research and department chairs should monitor programs to assure proper use.

9. According to the results of the alumni survey, a large percentage of students responding believe, and the Task Force concurs, that opportunities for internships or other integration/synthesis experiences should be available as a "capstone experience" for undergraduates. This experience should provide a means for the student to apply what he/she has learned to a career field and relate it to the larger society and should be a requirement for all graduates.

10. It is generally agreed by all groups contacted by the Task Force that graduates of the college need skills in the following areas: technical, oral and written communication, computer application, interpersonal relationships, professional ethics, international development, and leadership development. Each academic unit should identify the measure in which they will integrate these requirements into their curricula.

# 5.0 RECRUITMENT/PLACEMENT

Within the COA/SFRC each department has developed curricula that prepare graduates for specific career opportunities. Departmental curricula may vary due to influence from professional societies, accrediting agencies, and professional requirements or they may have more similarities than differences because of common departmental goals.

Throughout the college there are few formal follow-up activities. Departments with accredited/approved programs are involved with the most rigorous follow-up, typically in the form of annual surveys. College-wide, little has been done to collect data from either graduates or employers.

Despite this lack of documented information, there is an active communication network among faculty and employers. Faculty are able to identify specific individuals and companies to contact for employment information. Informal discussion with some employers indicates that most are pleased with the quality of COA/SFRC graduates. Those employers contacted recommended development of strong communication, leadership, and human relations skills, instruction in ethics, and, as applicable, fluency in a second language (Spanish) to maintain a contemporary curriculum. Some indicated that student participation in an internship before graduation would be beneficial.

To plan and conduct recruitment and placement, the COA/SFRC and departments must develop strong cooperative relationships. COA/SFRC should set the pace and establish an emphasis on recruitment and be responsible for high school and community college recruitment. The COA/SFRC should help departments coordinate recruitment efforts that focus on student quality rather than quantity. Individual departments should be responsible for setting guidelines for student qualifications and educating COA/SFRC recruiters about the academic nature of programs, employment opportunities, etc. Job placement should involve the department.

The COA/SFRC needs a college-wide placement/follow-up program to assist in evaluating curricula, determining job availability, and assessing adequacy of student preparation for employment and/or graduate studies.

## 5.1 RECRUITMENT SITUATION

COA/SFRC has a full-time recruiter who has developed a recruitment program at the community college level through on-campus visits as a member of UF's recruitment team. The recruiter is also responsible for the management of no more than ten students in the Ambassadors Program.

Based on the department chair survey and personal communication, the departments have no organized recruitment procedure. Some departments sporadically recruit using various methods, but no sustained, organized procedure is in place.

## 5.2 RECRUITMENT RECOMMENDATIONS

1. Each major, *not department*, should designate a recruitment coordinator and develop specific descriptions for the types of jobs available to graduates, types of training needed, and type of student targeted for recruitment.

2. The COA/SFRC Recruiter should meet with the council of recruitment coordinators each semester. The council should develop a recruitment plan that includes target audiences and appropriate contact methods.

3. The COA/SFRC Recruiter should develop a recruitment package of printed and video material which should be made available to all council members.

4. The COA/SFRC Recruiter will call on council members for committee work and direct communication with recruits and their families.

5. The Ag Ambassador Program should be expanded to at least 25 students, with at least one student per major. These students should not be limited to undergraduates.

6. Once specific target groups are identified, contact methods including the following, should be determined:

    a. COA/SFRC Recruiter's office should maintain lists of winners of awards, scholarships, competitions, etc. in 4-H, FFA, and other appropriate groups. Each month a letter should be sent to new additions to this list. This letter should accompany a COA/SFRC brochure.

    b. All majors/departments should have a current brochure and undergraduate handbook available to those recruits with specific interests.

    c. Ag Ambassadors should staff a COA/SFRC exhibit at all major trade shows, fairs, workshops, and other functions where recruits, friends and family may congregate.

    d. A close relationship should be developed with the coordinators of county science fairs, advisors of science clubs, and recipients of major science-related awards. The Florida Foundation for Future Scientists and the 4-H Mentors in Science are good starting points to develop this target audience.

7. A mailing list of all community college and major high school advisors should be maintained. Printed materials and order forms for video material should be sent to these individuals on a yearly basis.

8. Workshops that introduce COA/SFRC programs, including a career orientation and college exploration session, should be created for community college and university advisors and held on a regular basis.

9. Special recruitment efforts should be implemented to show UF students how subject matter interests that may be perceived as not being agriculturally related can be applied to agriculture and its related industries.

10. Service courses that serve as educational and recruitment tools (Man's Food, The Meat We Eat, etc.) should be offered considering budgetary and human resource capabilities.

11. The COA/SFRC should work with SHARE to endow funding that would allow the use of major scholarships ($1,000 to 5,000/year) as incentives for attracting outstanding students.

12. COA/SFRC Alumni and Friends should work with the recruitment council through the COA/SFRC recruiter to develop a recruitment team for each area of the state. These teams should distribute printed and video materials to target groups in their area. These teams should act proactively as well as reactively.

13. Communication of activities/programs of Ag. Ambassadors should be strengthened. Some departments/faculty indicated they have been not felt fully informed in the past.

## 5.3 PLACEMENT SITUATION

The COA/SFRC has a part-time Placement Officer through the University Career Resource Center. This is a new position since Fall, 1991 semester. The COA/SFRC and the Career Resource Center cooperate in the implementation of Ag Career Day each February.

Based on the department chair survey and personal communication, the departments have no formal placement program other than job announcement boards and requests from industry and students.

## 5.4 PLACEMENT RECOMMENDATIONS

1. Each major, *not department*, should designate a placement coordinator and develop a complete list of employers (address, phone number, contact person, types of positions, special needs, number of positions needed each year, etc.). These should be organized as a council of placement coordinators.

2. The COA/SFRC Placement Officer should meet with the council of placement coordinators each semester to develop a strategic plan for college-wide activities (such as Ag Career Day) periodic surveys to employers of COA/SFRC graduates should provide feedback information concerning alumni performance, needs of future employees, etc.

3. The Placement Officer should work closely with the COA/SFRC Recruiter to insure that complete and accurate data are provided to recruits, teachers, extension agents, alumni, and others involved with recruitment.

4. The COA/SFRC Placement Officer should communicate with students through workshops that instruct students how to implement a job search, write professional letters, construct resumes, and perform in an interview.

5. The COA/SFRC should play a significant role in facilitating an active internship program with appropriate industries. The individual internships should be administered by the degree program, but the COA/SFRC Placement Officer should take leadership in developing those opportunities with employers.

6. Each alumnus should be surveyed every five years, beginning one year after graduation.

In order for the faculty of the COA/SFRC to complete these recommendations, the Dean's office must dedicate the necessary funding, faculty time and faculty support.

Extension faculty should be better utilized in the recruitment/placement effort, since they are more directly associated with many of the employers in the industry.

# 6.0 ADMISSIONS/PROGRESSION/GRADUATION STANDARDS

## 6.1 SITUATION

There are 16 majors in the College of Agriculture (COA) from which the entering student may choose. In most cases, students choose a major, and not a College. This is supported by the observation of staff in the Dean for Academic Programs office that approximately 90% of the students applying for admission to the college already have identified the major of their choice. Therefore, admissions criteria should give prime consideration to the major that the student chooses, and secondary consideration to the requirements for admission to the college, when decisions regarding admission are made.

The academic requirements for the majors are, understandably, quite different. The goals of students choosing the different majors are diverse, and this diversity should be reflected in flexible admission standards, tailored to fit each program.

Currently, admission standards for the COA/SFRC are listed in the **Undergraduate Catalog**. Inclusion of a common listing of the Preprofessional Requirements for all the programs in this section obfuscates the large differences that exist among the academic programs of the college. These differences can be gleaned by the reader who pays close attention to the eight (8) footnotes to the "Preprofessional Requirements" section.

Admissions criteria are different for the various categories of students applying to the college. These categories are:

a. Students who entered the University as Freshmen, and are applying to the COA/SFRC.

b. Students applying to the COA/SFRC who have received an A.A. degree from a Florida Public Community College.

c. Students applying to the COA/SFRC who have attended a Florida Public Community College, but have not received an A.A. degree.

d. Students applying to the COA/SFRC who have attended an institution of higher learning other than those listed above.

Any admissions criteria should give priority to treating each of these categories equally, in terms of requirements for admissions, or else there can be a perception of "unfair" treatment of these students. The challenge is to establish criteria to accomplish this. The Task Force believes that the important input should be from the individual undergraduate programs, and that the COA/SFRC requirements should establish minimum criteria, to be met or exceeded by the individual program requirements.

There are currently no progression standards in the College of Agriculture for monitoring the satisfactory progress of a student. The central administration of the University has asked that all colleges establish progression standards to be used in advising students. These will also be used to make admission decisions into an undergraduate program. This policy change has been inspired, in part, by the fact that entering Freshmen must compete for limited upper division student openings with students transferring from other colleges as well as currently

enrolled students. There is an especially large component of transfer students from Florida Public Community Colleges. Progression standards are anticipated to provide a more "level playing field" for competition among these different categories of students.

A major concern of the University is that only 47% of entering Freshmen earn a diploma. This abysmal statistic may be caused by various reasons, but one that can be addressed is better advising and monitoring of entering Freshmen during their first two years at the University. The purpose of progression standards is to achieve this goal. Progression standards are expected to serve the dual role of providing a tool for monitoring the satisfactory progress of a student already in a program, and to serve as a tool for admission decisions. They will replace the current "80 hour" rule. These standards should be strictly adhered to except for unique situations.

## 6.2 RECOMMENDATIONS

1. Each undergraduate program will take responsibility for establishing its own admission criteria, which will be submitted to the Undergraduate Curriculum Committee and Dean for Academic Programs for approval.

   The admission criteria should include progression standards that are tailored to each undergraduate program. These standards should be designed to allow early assessment of a student's ability to successfully complete the UG program.

2. Consistent with providing maximum latitude for individual programs to set their own admission criteria, the Task Force recommends that criteria for admission into the College be set at the lowest acceptable minimum for maintaining reasonable standards expected of a land grant university. The criteria as currently stated in the Undergraduate Catalog, through and including the "General Education Requirement" section, are acceptable as stated. It is recommended that the section on Preprofessional Requirements be replaced with program - specific admission requirements separately listed for each of the undergraduate majors/options.

3. The admission criteria established in recommendation 2 should be closely linked to the progression standards of each program. These standards will help the academic advisor track a student's progress in a particular major (each program will have its own set of progression standards) and become aware, hopefully at an early time, of problem areas for the student.

4. Progression standards should be established for each COA/SFRC undergraduate program where they do not currently exist. Of course, such standards will differ from one another, in terms of rigor and specific courses, in order to meet the academic character of the separate programs. These standards should be reviewed periodically.

5. The content of the progression standards should be decided by the department offering the major. The format should be clear, informative, and uniform for the different programs. We recommend a table-style or other consistent format. Appendix E shows a possible format.

6. Progression standards should be used for admission decisions and should be written, in part, with this goal in mind. An important component of these progression standards will be satisfying the University's general education requirements.

7. Admission decisions should be uniformly made by applying the same progression standards to all categories of students applying for admission (see recommendation 2).

8. Progression standards for the different undergraduate programs should be widely distributed within the University, with a special effort to ensure that they are available to incoming freshmen. They should also be distributed to all Florida Community Colleges, to assist them in advising. The progression standards should serve as COA/SFRC input to the "2 + 2" Articulation Programs developed with community colleges. This recommendation is consistent with that made by the Task Force on Off-Campus Teaching Programs to develop 2+2 programs with community colleges not currently having them.

9. To prepare for citizenship, each student completing a degree in the COA/SFRC should have minimum knowledge and skills appropriate for their curriculum option in the following areas:

   a. Oral and Written Communication
   b. Computer skills
   c. Professional ethics
   d. Integration/synthesis (capstone) experiences
   e. Knowledge of international aspects of major
   f. Economic literacy
   g. Agricultural safety and health
   h. Impacts of Agriculture on the Environment

   Each academic unit should identify the manner in which they will integrate these requirements into their curricula. A recommended strategy is to integrate these knowledges and skills into a variety of courses and other experiences.

10. If the previous recommendations are implemented, increased burden of advising by faculty in the program areas will result. This increased responsibility requires sufficient funding and support from the Dean's office to accommodate increased academic advising in the program area.

# 7.0 NON-TRADITIONAL/MINORITY STUDENT ISSUES

## 7.1 SITUATION

Minority enrollment in IFAS has increased substantially in the past several years. Black undergraduate enrollment constitutes approximately 13% while Hispanic undergraduates make up 6.5%. Other minorities make up a smaller percentage. Some departments have as high as 29% minority undergraduate enrollment while others have zero. Overall, the COA/SFRC is a major player in educating minority students at the University of Florida. The COA/SFRC should be commended because it has the largest minority percentage enrollment of any college in the University. Information on retention and graduation of minorities in the COA/SFRC is incomplete and not readily available.

Enrollment of non-traditional (i.e. older, disabled) students in the college and university appears to be increasing. Social and academic needs of these individuals may require increased consideration by faculty, staff, students, and administrators in the college.

## 7.2 RECOMMENDATIONS

1. The Office of Dean for Academic Programs should implement an effective information system to track the recruitment, retention, and graduation of minority students.

2. Recruitment and advisement of minority students should be a shared responsibility and not left entirely to the "minority recruiter." Departments must be urged to give high priority to minority recruitment, retention, graduation, and job placement.

3. Closer relations between offices such as UF Minority Affairs and individual departments need to be developed. Departments (where most of the advising, recruiting, and teaching are done) are often unaware of Minority Affairs activities. The Dean's office needs to find ways to improve awareness of activities and need for departmental involvement.

4. Departments need encouragement and support (physical and fiscal) from Office of the Dean to work on problems/issues which may disproportionately affect minorities (i.e., advising, progression, job seeking and placement, alumni contact).

5. Departments with low minority enrollments should be encouraged to increase their recruitment of quality minority students.

6. Special attention should be given to encouraging minority participation in college and departmental clubs, activities, and other organizations in addition to those specifically designated as minority clubs. For example, the Ambassadors needs minority representation.

7. The COA/SFRC needs to concentrate more on alleviating academic deficiencies. Possible strategies include mentoring and remedial programs, reading/tutorial assistance, and development of study skills.

8. Retention is a potential major problem. The COA/SFRC needs to maintain close contact with students throughout the program to help anticipate problem areas needing attention.

9. Means of increasing understanding of and appreciation for cultural diversity among the student body and faculty needs to receive visible support from the IFAS, Vice Presidents and Deans.

10. Person identified as "non-traditional students" should be surveyed to determine if their social, psychological and/or academic needs are being met.

# 8.0 SERVICE COURSES

## 8.1 SITUATION

There are two categories of service courses offered by IFAS departments: 1) inter-college and 2) inter-departmental. Service courses can have sizeable enrollments (e.g., WIS 2040 - Wildlife Issues in a Changing World, 700 students/semester) and in some cases they may meet the General Education requirements of the University.

Service courses are generally viewed as providing many positive benefits to the University of Florida and academic departments within IFAS. Such courses may serve as a vehicle for recruiting students into a major, increasing departmental student contact hours, introducing students to pertinent allied information outside their major, developing specific, but required skills of all College of Agriculture (COA) and School of Forest Resources and Conservation majors (SFRC); e.g., oral and written communication), and as a means of impacting the University wide perception of agricultural and natural resource sciences.

Despite the stated advantages, a significant disadvantage associated with service course offerings relates to the time and resource commitment of individual faculty and departments to teach these courses. This disadvantage generally becomes more pronounced during difficult fiscal periods when resources are limited (i.e., frozen faculty teaching positions, limited support to hire teaching assistants).

This review has focused on exploring ways to enhance the benefits and reduce the disadvantages associated with offering inter-college and inter-departmental service courses. In doing so, information was gathered from academic units and individual faculty members within IFAS to address the following questions:

1. What are the needs and opportunities of service courses within IFAS? Outside of IFAS?

   a. Should IFAS teaching programs develop additional service courses that meet General Education requirements for the University (e.g., biological science, social science, humanities, international studies and diversity)?

   b. Are there some service courses that are significantly important enough to justify enrollment by all COA and SFRC students (e.g., oral and written communications, computer literacy)?

2. How should widely-enrolled service courses be supported?

3. What can be done to sustain and enhance the quality of service courses?

## 8.2 RECOMMENDATIONS

1. Introductory courses that meet University General Education requirements should be developed to provide students with an introduction to programs within the COA/SFRC. In addition, Upper Division interdisciplinary techniques courses that are appealing to students outside/within the COA/SFRC should be developed/enhanced. The Undergraduate Curriculum Committee could convene an interdisciplinary committee to develop a listing of existing and proposed courses that meet this recommendation.

Development of new offerings should be considered with consideration given to resource limitations. Priorities for development/enhancement could be established by the committee. Special consideration should be given to development of courses that broaden students' exposure to non-biological discipline areas within COA/SFRC (i.e., those that meet General Education requirements in social sciences, international studies, and diversity).

2. All COA/SFRC curricula should include representative content addressing the development of basic-level skills in oral and written communications and computer literacy. Academic units responsible for various curricula options should identify the most appropriate courses for addressing this recommendation. Example course offerings would include, but not be restricted to: AEE 3033 (Agricultural Writing), ENC 3250 (Professional Communication), ENC 4260 (Advanced Professional Writing), AEE 3030 (Oral Communications for Agricultural Professions), SPC 2600 (Introduction to Public Speaking), CAP 3802 (Intro to Computer Programming and Software Packages), AGG 4943 (Computer Use in Agriculture).

3. In times of legislatively mandated funding reductions, academic units might reallocate available funds for purposes of maintaining program integrity in critical areas (e.g., required courses within a major). To ensure continuity in offering key service courses, especially during difficult fiscal periods, and to sustain quality education by avoiding faculty "burnout" from assignment overloads, resources should provide continuity in support for teaching key service courses with large enrollments. The Dean for Academic Programs should commit resources to service courses prior to allocation of teaching budgets to academic units. Tangible support would include necessary teaching supplies (e.g., visual aid materials, photocopying) and adequate support staff (e.g., teaching assistants, A&P/USPS personnel to assist in grading assignments and running laboratories) to maintain a quality educational experience for the student. In some cases, an instructor-level position may represent a more efficient mechanism for teaching introductory-level service courses than a tenured faculty line.

4. Faculty with large enrollment-service course responsibility should be given consideration for the increased time commitment needed to carry out the instruction and related activities inherent in these courses.

# 9.0 ADVISING AND COUNSELING

## 9.1 SITUATION

Currently, students admitted to the college are advised by departmental advisors concerning their academic programs. Some departments have a limited number of advisors, while others have several faculty serving in the role of academic advisors. In conversations with students (both formally and informally) the task force found that students were very much satisfied with the quality of advising they were receiving at the department level. It should be noted that there is minimum tangible recognition of faculty for activities related to advising and counseling.

## 9.2 RECOMMENDATIONS

1. The strategy of using department-level faculty for advising undergraduates should be continued. Periodic up-dating sessions conducted by the Assistant Dean for Academic Programs should be continued as needed, but generally no less frequently than once per year.

2. Plans should be made to conduct a workshop for advisors in the College of Liberal Arts and Sciences to assure they are aware of the opportunities available to students who have interests related to agriculture and natural resources.

3. Every effort should be made to get every department on-line with the SASS system as soon as financially possible. Many departments will need additional computer hardware and personnel support to implement this recommendation.

4. Pre-vet advisors should meet with representatives from COA/SFRC's Academic Programs office and the College of Veterinary Medicine's Student Services office on an annual basis to provide the advisors with the appropriate information needed for counseling pre-vet students. These advisors should receive data on applicants, as well as the procedure used to grant interviews and invitations for admission. Criteria and minimum standards used for granting interviews and admission should also be provided.

5. Faculty should be more adequately recognized for academic activities related to advising/counseling. The recognition with the most impact would be salary increases and consideration of activities during the promotion/tenure process.

# 10.0 POST-BACCALAUREATE PROGRAM

## 10.1 SITUATION

The Post-baccalaureate program of the College is described in the Undergraduate Catalog (1991-92) as follows:

> Special Postbaccalaureate Students
>
> A student who has received a baccalaureate degree may be admitted under certain circumstances as a special postbaccalaureate student (6AG) in order to:
>
> (1) Receive a second baccalaureate degree;
> (2) Satisfy requirements for a second major;
> (3) Take basic requirements for admission to graduate or professional school; or
> (4) Complete courses for information only.
>
> Admission requirements for postbaccalaureate students are the same as for transfer students. In addition, postbaccalaureate students must comply with College and University rules and regulations and meet all deadlines as printed in the catalog for undergraduate students.

The goals listed above are all acceptable, but there should be included with these a clear set of expectations consistent with the stated goals and reasons for participating in the program by each post baccalaureate student.

## 10.2 RECOMMENDATIONS

1. All admissions should be subject to approval by the department of the academic program to which the student is applying.

2. In view of the fact that there are various reasons for which a student wishes to gain admission, there should be a written statement furnished by the student to include the reasons for applying. This will serve as the foundation for development of an appropriate plan of study to be followed by the student during post-baccalaureate student status.

3. A course plan should be developed to fulfill the stated goals of the student based on the progression standards of the particular undergraduate academic program. Other stated reasons would require development of a customized course plan to match the stated goals.

4. Each COA/SFRC academic program should be responsible for establishing its own admissions criteria, in order to provide maximum flexibility to each program so that the post-baccalaureate program blends well with respective undergraduate programs. It is expected that these admissions criteria will vary widely among the various programs, reflecting the programs' significant differences of enrollment status and academic characters.

# 11.0 COMPUTER/INFORMATION RETRIEVAL SKILLS DEVELOPMENT

## 11.1 SITUATION

Students in the college of agriculture receive a variety of kinds of computer instruction/experience while enrolled in the COA/SFRC. This can range from required course work to experience with applications within a course. There are currently two computer labs available for student use as well as for instruction.

Members of the Task Force see need for expanded basic computer literacy and information retrieval skill among students in the COA/SFRC. In particular they believe that all students should have a basic set of computer skills; specifically that they have the ability to effectively use standard PC software packages including operating systems, word processing products, spreadsheets, and relational database programs. Likewise they need to develop the ability to access and retrieve various data/information bases appropriate to their area of study. Furthermore, students should develop those skills as early in their degree program as possible.

To meet this need we feel the most desirable option is that students entering the College should be required to demonstrate proficiency or have satisfactorily completed course work that develops the specified skills. For example, there is a service course, CAP 3802, taught by the business portion of the CIS Department that currently covers the recommended skills. Additional PC literacy service courses with a particular orientation might developed. Another alternative would be to use existing courses in FRE, AOM, ANS, ENY, HOS, and AEE designed to teach the necessary software packages using assignments generally appropriate to each of the Departments/subject matter areas.

## 11.2 RECOMMENDATIONS

1. All programs should require students to receive a level of computer skills equivalent to completing the course CAP 3802. Students should be able to work with microcomputer applications including word processing, spreadsheets, databases, and graphics. AGG 4943 (Computer Use in Agriculture) is a possible alternative course to CAP 3802.

2. Each program should ensure that adequate computer usage is required of all students with existing course work to assure that students understand how to use microcomputers within their field.

# 12.0 FACULTY RECOGNITION/DEVELOPMENT/RESPONSIBILITY

**Faculty Academic Program Activities**, for the purpose of this report, has the following meaning(s):

*Those activities conducted by faculty that relate to carrying out the undergraduate instructional process. Such activities include, but are not limited to: teaching classes, advising/counseling students, recruitment activities, curricula/course development and enhancement activities, and advising student clubs and societies.*

**Faculty Development**, for the purpose of this activity, has the following meaning(s):

*Those activities/experiences that faculty are involved in that are intended to enhance the teaching/learning process -- whether those activities deal with subject matter content or strategies for "better" teaching. Included are such experiences as: workshops, recognition for teaching quality, and faculty development leave.*

## 12.1 SITUATION

The Task Force believes that the psychological environment for undergraduate teaching has not been as strong as it should be for a high morale among the faculty. Although this may just be a result of budgetary constraints, the task force believes that the perception by faculty that teaching is the "step-child" of IFAS is somewhat justified. This conclusion is based on belief that there has not been aggressive leadership and support for a faculty development program. There is also the age-old perception that teaching activity does not receive the same "credit" in the tenure and promotion process as does research and publication activity.

## 12.2 RECOMMENDATIONS

1. The importance of the teaching function must be reflected in a reward system that utilizes long-term as well as short-term recognition. Many faculty perceive that the teaching function is neither highly regarded nor rewarded by some administrators and faculty (particularly faculty who have impact on promotion/tenure/salary decisions). Faculties in all academic departments should review their philosophy and perhaps restate their commitment to the importance and role of each of the functions of teaching, extension and research to the mission of the Land Grant University. Possible means to demonstrate support for teaching include, but should not be limited to:

    a. increased USPS and A&P positions dedicated to the instructional program,

    b. increased allocation of graduate teaching assistantships,

    c. faculty development activities related to improving teaching,

    d. establishment of Distinguished Teaching Professorships,

    e. salary adjustments based as much on teaching performance as research/extension performance,

f. development of criteria for assessing the productivity of the instructional teaching assignment (academic program), including, but not be limited to:

(1) peer evaluation,
(2) student evaluations,
(3) curricula development activities,
(4) recruitment/placement activities conducted,
(5) advising load,
(6) faculty development activities related to teaching improvement.
(7) advising undergraduate student organizations.

2. A college-wide committee should be formed by the Dean for Academic Programs to coordinate the design, conduct, and evaluation of faculty development activities. This may entail simply changing the name and broadening the function of the current Teaching Improvement Committee. This committee should be the clearinghouse for assessing needs/desires of faculty for relevant activities to help them become better teachers/advisors.

3. Monies should be allocated for short-term faculty development activities that may occur at off-campus sites (i.e., workshops/seminars on teaching improvement or short-term mini-sabbaticals). These monies should be distributed in the form of grants to faculty with teaching/advising and/or other academic program-related activities. Monies might be used for travel/per diem to workshops/conferences, travel to other universities to observe innovative teaching programs, etc. The Academic Development Committee (see recommendation 2 above) should have significant input into this activity.

4. Seminars/courses on improving teaching, such as the Ag Sat course "Methods of College Teaching in Agriculture and Natural Resources," that was downlinked Spring 1992 semester should be offered during "primetime" hours.

5. New faculty with teaching assignments should be rewarded for participating in an "Orientation to Effective Teaching" seminar, having their teaching performance assessed and following a plan developed to help them improve their ability to enhance the teaching/learning process. This "assessment" should be conducted by faculty recognized as effective teachers.

6. To emphasize the importance of quality teaching in the preparation of COA/SFRC graduates, faculty should more adequately document teaching quality through peer-review based on in-class observations, evaluations conducted by personnel assigned by academic programs, student evaluations, and reactions from peers at other institutions concerning teaching effectiveness of faculty.

7. Consideration should be given to the establishment of an "Academy of Teaching Excellence," where faculty generally regarded as "master teachers" can be involved to assist other faculty to improve teaching. This program could begin as a "mentoring" system.

8. Documented, recognized quality teaching should continue to be rewarded via existing mechanisms (i.e., Teacher of the Year, Honor Roll, etc). However, recognition should have a "longer-term" effect (i.e., salary adjustment).

9. The process for selecting outstanding teaching faculty in the college (i.e., Teacher of the Year) should be reviewed with the aim of including faculty/administrators as well as students in the selection process. The current process is too often "politicized" and a popularity contest.

10. Faculty should be encouraged to apply for Instructional Development Grants (USDA, NSF, etc.) as a means to encourage instructional improvement. Faculty should be rewarded for submission (as well as awarding) of proposals.

# 13.0 INTERNATIONALIZING THE CURRICULUM

## 13.1 SITUATION

Today's food/agricultural and natural resources systems impact, and are impacted by, forces throughout the world. The exchange of goods and services is not limited to the confines of the borders of the United States. Individuals who seek to enter the agricultural and natural resources system must be aware of the interrelationships of contemporary and emerging cultural, economic, and environmental forces as they relate to American agriculture. They must also understand how to deal with these forces. The University is attempting to deal with the need for a greater emphasis on the international aspects of students' general education by requiring six semester hours of coursework in international Studies and Diversity as part of the General Education requirements. The Task Force endorses this requirement and commends the University for its action.

## 13.2 RECOMMENDATIONS

1. The College Undergraduate Curriculum Committee should give leadership to the development of a course/courses that emphasize "world agriculture" that would have wide application and appeal to the University student body. This course should meet the requirements for acceptance as an option for the "international studies and diversity" general education requirement.

2. Each academic unit in the college should address and respond to how they will address/incorporate an international component into their curricular options. Possible strategies might include, but not be limited to, specific course requirements, integration of "international concepts" into existing courses, and international study opportunities. These strategies should be subject to the approval of the Undergraduate Curriculum Committee and the Dean for Academic Programs.

3. The development of international study opportunities related to student's majors should be encouraged. These opportunities might be financed in part via grants from SHARE contributors. These international experiences might serve as one means for addressing the recommendation for a "capstone experience" (see 4.2.9) for each undergraduate.

4. Efforts should be made to investigate, possibly by the Academic Development Committee, a mechanism for development of teaching faculty experience in international situations. To lessen impact on departmental resources, such opportunities might also be funded by SHARE-solicited contributions.

5. The strengthening of the relationship between the IFAS Office of International Programs and the University International Programs and Studies office should be encouraged. This could help assure duplication of effort related to "internationalizing" curricula and programs.

**APPENDIX A**

*COLLEGE OF AGRICULTURE ALUMNI SURVEY*

*Results of this survey are based on a mail survey to a stratified random sample of 100 graduates of the College of Agriculture/SFRC for the 1986-1991 academic years. The sample was stratified according to proportion of departmental graduates. Results are based on anonymous responses from 52 alumni (or 52% of the sample), and are expressed in percentages unless otherwise noted.*

*PART I -- Directions: In terms of your college experience and your present occupation, please indicate your level of agreement with the following primary objectives as being essential for an undergraduate education in agriculture/forestry/natural resources using the following scale:*

| | |
|---|---|
| *Strongly Disagree (SD)* | *Agree (A)* |
| *Disagree (D)* | *Strongly Agree (SA)* |
| *Undecided (U)* | *No Answer (NA)* |

| *PRIMARY OBJECTIVES* | | *% RESPONSE* |
|---|---|---|
| ***Career and job orientation*** | *SD* | *0.0* |
| *Knowledge of career opportunities* | *D* | *1.9* |
| *within major and general job* | *U* | *5.8* |
| *requirements* | *A* | *48.1* |
| | *SA* | *44.2* |
| ***Technical competence*** | *SD* | *0.0* |
| *Knowledge of specifics, including* | *D* | *1.9* |
| *facts, data, basic scientific tools* | *U* | *1.9* |
| *and fundamentals used in problem* | *A* | *63.5* |
| *solving* | *SA* | *32.7* |
| ***Comprehensive application*** | *SD* | *0.0* |
| *Application of basic information,* | *D* | *0.0* |
| *including translating, interpreting* | *U* | *7.7* |
| *and extrapolating* | *A* | *50.0* |
| | *SA* | *42.3* |
| ***Critical thinking*** | *SD* | *0.0* |
| *Analysis of basic information,* | *D* | *0.0* |
| *including synthesis of infor-* | *U* | *9.6* |
| *mation and evaluation of outcomes* | *A* | *38.5* |
| | *SA* | *51.9* |

*For each of the following statements, indicate the extent to which you consider them to be essential enabling objectives for an undergraduate education.*

| *ENABLING OBJECTIVES* | | *% RESPONSE* |
|---|---|---|
| ***Written communication*** | *SD* | *0.0* |
| *The ability to write effectively* | *D* | *0.0* |
| | *U* | *3.9* |
| | *A* | *21.2* |
| | *SA* | *75.0* |
| ***Oral communication*** | *SD* | *0.0* |
| *The ability to speak effectively* | *D* | *0.0* |
| | *U* | *3.9* |
| | *A* | *26.9* |
| | *SA* | *69.2* |
| ***Values development*** | *SD* | *0.0* |
| *Formulation of a value system* | *D* | *1.9* |
| *relative to issues and concerns* | *U* | *11.5* |
| | *A* | *48.1* |
| | *SA* | *38.5* |
| ***Interpersonal development*** | *SD* | *0.0* |
| *Awareness of others' needs and an* | *D* | *1.9* |
| *ability to get along with others* | *U* | *7.7* |
| | *A* | *48.1* |
| | *SA* | *42.3* |
| ***Leadership development*** | *SD* | *1.9* |
| *Ability to organize and assist* | *D* | *0.0* |
| *groups in achieving agreed upon* | *U* | *3.9* |
| *goals* | *A* | *48.1* |
| | *SA* | *46.2* |
| ***Computer competence*** | *SD* | *0.0* |
| *Use of mainframe or microcomputer* | *D* | *0.0* |
| *data bases, spread sheets, and* | *U* | *15.4* |
| *word processing* | *A* | *40.4* |
| | *SA* | *44.2* |

*PART II -- Please indicate for each of the primary and enabling objectives listed below, the degree to which you agree that your undergraduate education helped you develop these skills.*

| *PRIMARY OBJECTIVES* | | *% RESPONSE* |
|---|---|---|
| ***Career and job orientation*** | *SD* | *5.8* |
| *Knowledge of career opportunities* | *D* | *28.9* |
| *within major and general job* | *U* | *19.2* |
| *requirements* | *A* | *44.2* |
| | *SA* | *0.0* |

| | | |
|---|---|---|
| ***Technical competence*** | *SD* | *0.0* |
| *Knowledge of specifics, including* | *D* | *5.8* |
| *facts, data, basic scientific tools* | *U* | *11.5* |
| *and fundamentals used in problem* | *A* | *65.4* |
| *solving* | *SA* | *15.4* |
| ***Comprehensive application*** | *SD* | *1.9* |
| *Application of basic information,* | *D* | *5.8* |
| *including translating, interpreting* | *U* | *13.5* |
| *and extrapolating* | *A* | *67.3* |
| | *SA* | *9.6* |
| ***Critical thinking*** | *SD* | *0.0* |
| *Analysis of basic information,* | *D* | *1.9* |
| *including synthesis of infor-* | *U* | *23.1* |
| *mation and evaluation of outcomes* | *A* | *61.5* |
| | *SA* | *11.5* |
| ***ENABLING OBJECTIVES*** | *%* | ***RESPONSE*** |
| ***Written communication*** | *SD* | *0.0* |
| *The ability to write effectively* | *D* | *5.8* |
| | *U* | *21.2* |
| | *A* | *50.0* |
| | *SA* | *21.2* |
| ***Oral communication*** | *SD* | *0.0* |
| *The ability to speak effectively* | *D* | *11.5* |
| | *U* | *17.3* |
| | *A* | *44.2* |
| | *SA* | *25.0* |
| ***Values development*** | *SD* | *5.8* |
| *Formulation of a value system* | *D* | *17.3* |
| *relative to issues and concerns* | *U* | *38.5* |
| | *A* | *32.7* |
| | *SA* | *3.9* |
| ***Interpersonal development*** | *SD* | *1.9* |
| *Awareness of others' needs and an* | *D* | *15.4* |
| *ability to get along with others* | *U* | *26.9* |
| | *A* | *48.1* |
| | *SA* | *5.8* |
| ***Leadership development*** | *SD* | *1.9* |
| *Ability to organize and assist* | *D* | *13.5* |
| *groups in achieving agreed upon* | *U* | *21.2* |
| *goals* | *A* | *50.0* |
| | *SA* | *11.5* |

| | | |
|---|---|---|
| **Computer competence** | SD | 0.0 |
| Use of mainframe or microcomputer | D | 30.8 |
| data bases, spread sheets, and | U | 11.5 |
| word processing | A | 42.3 |
| | SA | 13.5 |

Part III -- In view of your college and post-college experiences and present occupation, rate, by circling the most appropriate response, **THE ADEQUACY OF COURSE WORK YOU RECEIVED.** Responses are (1) poor, (2) fair, (3) average, (4) good, or (5) excellent.

| | | % RESPONSE |
|---|---|---|
| **Lower Division** (General education) | 1 | 3.9 |
| courses taken in first two years | 2 | 9.6 |
| at community college or UF | 3 | 34.6 |
| | 4 | 40.4 |
| | 5 | 9.6 |
| | NA | 1.9 |
| **Courses in my major department** | 1 | 1.9 |
| | 2 | 1.9 |
| | 3 | 17.3 |
| | 4 | 51.9 |
| | 5 | 28.9 |
| **Courses related to my major** | 1 | 1.9 |
| | 2 | 3.9 |
| | 3 | 19.2 |
| | 4 | 51.9 |
| | 5 | 21.2 |
| **Courses designed to develop WRITTEN communication skills** | 1 | 3.9 |
| | 2 | 15.4 |
| | 3 | 28.9 |
| | 4 | 38.5 |
| | 5 | 13.5 |
| **Courses designed to develop ORAL communication skills** | 1 | 5.8 |
| | 2 | 21.2 |
| | 3 | 25.0 |
| | 4 | 21.2 |
| | 5 | 26.9 |

*PART IV -- Please respond to each of the following in relation to your experiences while enrolled in the College of Agriculture.*

| | | % RESPONSE |
|---|---|---|
| My advisors were available when needed | SD | 5.8 |
| | D | 9.6 |
| | U | 5.8 |
| | A | 32.7 |
| | SA | 46.2 |
| My advisors were friendly and cooperative | SD | 3.9 |
| | D | 5.8 |
| | U | 5.8 |
| | A | 40.4 |
| | SA | 44.2 |
| My advisors seemed well qualified to advise students | SD | 5.8 |
| | D | 7.7 |
| | U | 17.3 |
| | A | 38.5 |
| | SA | 30.8 |
| Professors teaching my classes were generally available to meet with me | SD | 0.0 |
| | D | 1.9 |
| | U | 3.9 |
| | A | 51.9 |
| | SA | 42.3 |
| There were adequate opportunities for me to become involved in student clubs and activities | SD | 0.0 |
| | D | 1.9 |
| | U | 9.6 |
| | A | 40.4 |
| | SA | 48.1 |
| Any suggestions I might have made about the curriculum and courses were taken seriously by faculty and administrators | SD | 3.9 |
| | D | 7.7 |
| | U | 42.3 |
| | A | 38.5 |
| | SA | 7.7 |

| | | |
|---|---|---|
| ***Courses with labs I took in the college were helpful for applying skills/ concepts learned in lectures*** | *SD* | *0.0* |
| | *D* | *5.8* |
| | *U* | *17.3* |
| | *A* | *50.0* |
| | *SA* | *26.9* |
| ***Faculty in my department helped me to find a job after graduation*** | *SD* | *17.3* |
| | *D* | *26.9* |
| | *U* | *19.2* |
| | *A* | *15.4* |
| | *SA* | *19.2* |
| | *NA* | *3.9* |

*PART V -- Please respond to each of the following questions.*

1. *What was your undergraduate major in the College of Agriculture?*

| | % *RESPONSE* |
|---|---|
| *Ag. & Extension Education* | *7.7* |
| *Agricultural Engineering* | *1.9* |
| *Animal Science* | *17.3* |
| *Environmental Horticulture* | *3.9* |
| *Food & Resource Economics* | *19.2* |
| *Food Science & Human Nutrition* | *9.6* |
| *Forest Resource Conservation* | *7.7* |
| *Fruit Crops* | *1.9* |
| *Microbiology* | *9.6* |
| *Operations & Management* | *7.7* |
| *Ornamental Horticulture* | *3.9* |
| *Plant Pathology* | *1.9* |
| *Plant Science* | *1.9* |
| *Vegetable Crops* | *3.9* |
| *Wildlife Ecology* | *1.9* |

2. *Did you dual major as an undergraduate?*

| | |
|---|---|
| *yes* | *7.7%* |
| *no* | *92.3%* |

*If YES, what was your second major?*

| | |
|---|---|
| *Ag. Education* | *50.0%* |
| *Poultry Science* | *25.0%* |
| *Bus. Admin.* | *25.0%* |

3. *Did you complete a MINOR?*

| | |
|---|---|
| *yes* | *7.7%* |
| *no* | *92.3%* |

*If YES, in what department?*

| | |
|---|---|
| *Bus. Admin.* | *50.0%* |
| *Microbiology* | *25.0%* |
| *Chemistry* | *25.0%* |

*Did the completion of this minor provide any benefits to you within your chosen career or continued schooling?*

| | |
|---|---|
| *yes* | *100.0%* |

4. *Did you complete the requirements for any of the certificate programs in the college?*

| | |
|---|---|
| *yes* | *0.0%* |
| *no* | *100.0%* |

5. *What is your current highest level of education?*

| | |
|---|---|
| *Undergraduate degree* | *48.1%* |
| *Undergraduate degree and some graduate courses* | *32.7%* |
| *Master's degree* | *7.7%* |
| *Master's degree with additional graduate courses* | *0.0%* |
| *Doctor's degree* | *0.0%* |
| *Professional degree (M.D., D.M.V., D.D.S.)* | *9.6%* |

| | |
|---|---|
| *DMD* | *20.0%* |
| *MD* | *20.0%* |
| *JD* | *20.0%* |
| *DVM* | *40.0%* |

6. *How many years has it been since you completed your undergraduate degree at the University of Florida?*

| | |
|---|---|
| *<1 year* | *7.7%* |
| *1-2 years* | *48.1%* |
| *3-4 years* | *28.9%* |
| *5-6 years* | *13.5%* |
| *NA* | *1.9%* |

7. *What was your **FIRST** job after graduation?*

| | |
|---|---|
| *Forestry Career* | *5.8%* |
| *Agricultural Career* | *30.8%* |
| *Ag. Teacher* | *1.9%* |
| *Science Career* | *9.6%* |
| *Nutrition* | *1.9%* |
| *Sales/Business* | *15.4%* |
| *Law* | *3.9%* |
| *Other* | *0.0%* |
| *NA* | *30.8%* |

8. *What is your **PRESENT** job?*

| | |
|---|---|
| *Forestry Career* | *3.9%* |
| *Agricultural Career* | *26.9%* |
| *Ag. Teacher* | *1.9%* |
| *Science Career* | *5.8%* |
| *Nutrition* | *1.9%* |
| *Sales/Business* | *11.5%* |
| *Law* | *3.9%* |
| *Other* | *7.7%* |
| *NA* | *36.5%* |

9. *If you completed a degree designed to prepare you to enter a professional school (Medicine, Vet, etc.) do you feel that your undergraduate degree adequately prepared your to compete for admission?*

| | |
|---|---|
| *yes* | *25.0%* |
| *no* | *1.9%* |
| *DNA* | *59.6%* |
| *NA* | *13.5%* |

10. *What did you do immediately following your graduation from UF?*

| | |
|---|---|
| *Took a job* | *59.6%* |
| *Entered Graduate school at UF* | *13.5%* |
| *Entered Graduate school at other institution* | *5.8%* |
| *Entered Professional school* | *11.5%* |
| *Entered military* | *0.0%* |
| *Other* | *7.7%* |
| *NA* | *1.9%* |

11. *Why did you choose the College of Agriculture at the University of Florida? (Choose all that apply)*

| | |
|---|---|
| *Parental Influence* | *13.5%* |
| *Only place in Florida I could get the degree I wanted* | *28.9%* |
| *A friend influenced me* | *23.1%* |
| *Contact with a faculty member* | *21.2%* |
| *A teacher in high school influenced me* | *1.9%* |
| *Best preparation for professional schools (Medicine, Vet, etc.)* | *19.2%* |
| *Information (brochures, etc.) I read about the College and its programs* | *38.5%* |
| *Other (scholarship, close to home, stay in FL, Community College counselor's influence, etc.)* | *32.7%* |

12. *If you were starting college again, would you enroll in the same major again?*

| | |
|---|---|
| *yes* | *59.6%* |
| *no* | *40.4%* |

13. *Please make any additional comments you wish concerning the College of Agriculture's undergraduate program at the University of Florida.*

| | |
|---|---|
| *Majors not in real demand/no jobs/low pay* | *21.2%* |
| *Need more emphasis on business/intrntl market* | *13.5%* |
| *Faculty/advisors helpful and classes useful* | *30.8%* |
| *Need more internships/specific training* | *28.9%* |
| *Satisfied with current job/retains interest* | *32.7%* |
| *Need more job placement/better advisement* | *23.1%* |

**APPENDIX B**

*SPRING 1992 COLLEGE OF AGRICULTURE ENROLLMENT*

| Major | 0-6 Female | 0-6 Male | Minority Female | Minority Male | Total |
|---|---|---|---|---|---|
| AED | 30 | 18 | 1 | 1 | 48 |
| AGE/AG | 1 | 1 | 1 | 0 | 2 |
| AOM | 23 | 74 | 6 | 16 | 97 |
| AY | 6 | 13 | 1 | 5 | 19 |
| AL | 133 | 82 | 9 | 7 | 215 |
| BTY | 6 | 11 | 1 | 1 | 17 |
| DY | 4 | 9 | 0 | 0 | 13 |
| EY | 4 | 7 | 0 | 0 | 11 |
| FRE | 79 | 201 | 35 | 37 | 280 |
| FS | 126 | 58 | 49 | 16 | 184 |
| HOS | 12 | 36 | 2 | 2 | 48 |
| MCY | 91 | 128 | 25 | 30 | 219 |
| PT | 2 | 2 | 0 | 0 | 4 |
| PY | 3 | 3 | 1 | 1 | 6 |
| SLS | 2 | 8 | 0 | 1 | 10 |
| STA | 0 | 4 | 0 | 1 | 4 |
| UND | 32 | 22 | 6 | 1 | 54 |
| FY | 6 | 22 | 0 | 0 | 28 |
| WIE | 35 | 43 | 3 | 1 | 78 |
| NRC | 12 | 17 | 1 | 1 | 29 |
| FRC | 2 | 5 | 0 | 2 | 7 |
| AGE/EG | 8 | 50 | 3 | 13 | 58 |
| Immoka-lee | N/A | N/A | N/A | N/A | 71 |
| Ft. Laud | N/A | N/A | N/A | N/A | 65 |
| TOTAL | 618 | 814 | 144 | 136 | 1568 |

## APPENDIX C

*COLLEGE OF AGRICULTURE/*
*SCHOOL OF FOREST RESOURCES AND CONSERVATION*
*CURRICULA OVERVIEW*

| DEPARTMENT | MAJOR | CURRICULUM OPTIONS | MINORS | OTHERS |
|---|---|---|---|---|
| AgEd/Comm | B.S. Ag | Teaching<br>Extension<br>Communication<br>Dual | Extension | |
| AgOp.Mgt. | B.S. Ag | Production Mgt.<br>Manufact. & Process Mgt.<br>Technical Sales & Prod. Support<br>Bioprocess Mgt. | | |
| Agronomy | B.S. Ag | Agronomy | Agronomy | Plant Science |
| Animal Science | B.S. Ag | Animal Science | | |
| Botany | B.S. Ag | Botany | | |
| Dairy Science | B.S. Ag | Dairy Science<br>Dairy Mgt. | | |
| Entomology/ Nematology | B.S. Ag | Entomology | ENY/NEM | |
| Food/Resource Economics | B.S. Ag | Food/Res. Econ.<br>Agr. Bus. Mgt.<br>Human Res. & Comm. Econ.<br>Food Mrkt. & Distr.<br>Nat. Res. & Env. Econ.<br>Dual Major | FRE | |
| Food Science/ Human Nutr. | B.S. Ag | Food Science<br>Nutr./Dietetics<br>Nutr. Sciences | Food Science | |
| Forestry/ Wildlife and Range Sciences | B.S. FRC | Forestry<br>Wildlife Ecol.<br>Nat. Res. Cons. | Forestry<br>Wildlife Ecology | Cert. Urban For. |

| DEPARTMENT | MAJOR | CURRICULUM OPTIONS | MINORS | OTHERS |
|---|---|---|---|---|
| Horticultural Sciences | B.S. Ag | Gen. Hort. Sci.<br>Env. Hort<br>Commodity Interest Areas:<br>Nursery Mgt./ Landscape Hort.<br>Floriculture/ Foliage Prod.<br>Turfgrass Prod. & Mgt.<br>Urban Horticulture<br>Fruit Crops<br>Vegetable Crops<br>Mgt. Hort. Sci. | HOS | |
| Microbiology & Cell Science | B.S. Ag | MCY | | |
| Plant Pathology | B.S. Ag. | Agricultural Technology<br>Biotechnology | | |
| Poultry Science | B.S. Ag | General/Science<br>Mgt. of Business | | |
| Soil/Water Science | B.S. Ag | Soil Science<br>Soil Technology<br>Soils & Land Use | Soil Science | |
| Statistics | B.S. Ag | Statistics | | |

**APPENDIX D**

*CERTIFICATE PROGRAMS*
*COLLEGE OF AGRICULTURE/*
*SCHOOL OF FOREST RESOURCES AND CONSERVATION*

*Environmental Studies*

*Pest Management and Plant Protection*

*Computer Science*

*Liberal Arts/Sciences*

- *Life Science*
- *Agricultural Production*
- *Humanities and Agriculture*

    - *General: Ethics and Policy*
    - *Resources and Environment*
    - *Technology and Society*

*Urban Forestry*

**APPENDIX E**

*CRITERIA FOR ADMISSION INTO THE DEPARTMENT OF MICROBIOLOGY AND CELL SCIENCE AS AN UNDERGRADUATE MAJOR*

*The table below lists the criteria that will be used in evaluating your eligibility for admission into our major. These criteria have been established on the basis of our experience on the success of students in our program. They place heavy emphasis on obtaining a good training in the basic sciences. The student should start early in chemistry and biology. Good performance in these subjects is closely correlated with success in our program. The course sequences listed in the Table should be started by a student at the very beginning of his/her college career, in order that he/she does not require extra time for completing the requirements for the Bachelor's degree. These criteria should be closely followed by students planning to major in our program beginning with the very first semester of enrollment, so that the student is enabled to effectively follow the course sequences required.*

*These criteria allow for early admission of a student, when the academic record of the student merits this action. The advantage to you is that you will gain early access to the Department, and be eligible for research in a faculty laboratory, upon approval by the Undergraduate Coordinator. All National Merit Scholars and National Merit Finalists are eligible for early admission during their first semester at the University of Florida. Students entering with greater than a 3.7 high school GPA, and SAT score of 1300 or higher or ACT score of greater than 30 are also eligible for early admission.*

*Impact of these admission criteria on transfer students:*

*Those students transferring from another institution, for example a community college, will be admitted to the program only after completion of the criteria listed below. Importantly, admission into the program requires obtaining a "C" or better in MCB 3020C. There are no courses equivalent to MCB 3020C offered by any of the community colleges that we will accept. Therefore, conditional admission will be offered to community college transfer students who have fulfilled the biology and chemistry admission requirements, with actual admission into the program after completing MCB 3020C with a "C" or better. The community college student should complete chemistry through organic chemistry at the community college, if possible, in order to avoid delay in admission into our major.*

| *Earned credit hours; minimum grades* | *Biology* | *Chemistry* | *Physics & Math* | *Course in major* |
|---|---|---|---|---|
| *30 hrs; GPA for courses listed 2.5 or above. No grade less than "C" in these courses. Overall GPA 2.0 or above.* | *BSC 2010*<br>*BSC 2010L* | *CHM 2045***<br>*CHM 2045L*<br><br>*CHM 2046*<br>*CHM 2046L* | | |
| *45 hrs; same GPA and course grade criteria as above.* | *BSC 2011**<br>*BSC 2011L** | *CHM 3210* | | |
| *60 hrs; same GPA and course grade criteria as above. "C" or better in MCB 3020C* | | | *MAC 3311* | *MCB 3020C* |
| *75 hrs; GPA for courses listed 2.5 or above. No grade less than "C" in courses taken in the department. Overall GPA 2.5 or above.* | | *CHM 3211*<br>*CHM 3211L* | | |
| *90 hrs; same GPA and grade criteria as above* | | | *PHY 3053*<br>*PHY 3055L* | *3 additional depart-mental course credits.* |

**AGG 3303 may be substituted for BSC 2011 and BSC 2011L.*
***CHM 2040 and CHM 2041 may be substituted for CHM 2045.*

*Requirements for admission into the College are not included in these criteria.*